Safety Data Exchange Advances A Cautious Step Forward

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Under the watchful eyes of the aviation community, the Global Analysis and Information Network (GAIN), regarded by the FAA as the primary means to reduce the accident rate, has shifted from a concept to an embryonic stage.

At a conference here Oct. 22-24, industry and government safety officers agreed to develop a model to demonstrate on a small scale the value of operating the safety data analysis and exchange system that GAIN envisions. Employing the largest privately owned system, British Airways' BASIS, the project will analyze data from three sources covering reported problems of flight management systems.

Safety officers in a conference workshop agreed to test the feasibility of data sharing that will involve inputs from "more

Japan Airlines has tracked aircraft operating trends for more than 15 years through its daily Flight Operation Monitoring Program.

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than several" sources. Another workshop made plans to search for appropriate ways to dissociate airlines and employees from the data as a protection from lawsuits or punitive action.

The FAA employed a team of facilitators and devoted nearly half of the conference to a process called "distillation to action." The 150 participants, representing industry, the airlines and the military, were divided into three large groups and engaged in interactive processes to arrive at certain goals including a definition for GAIN and the writing of a mission statement.

They failed, however, to put together a steering committee that FAA organizers had hoped for as a catalyst for GAIN. Instead, a planning committee was formed to prepare a program and provide a progress report for the next GAIN meeting, May 27-28, in London, sponsored by the Royal Aeronautical Society.

GIVEN THE SENSITIVE ISSUES of confidentiality and the threat of legal ramifications from maintaining safety data, just the decision to move ahead with GAIN was a milestone, said John O'Brien, director, engineering and air safety, Air Line Pilots Assn., a strong GAIN proponent.

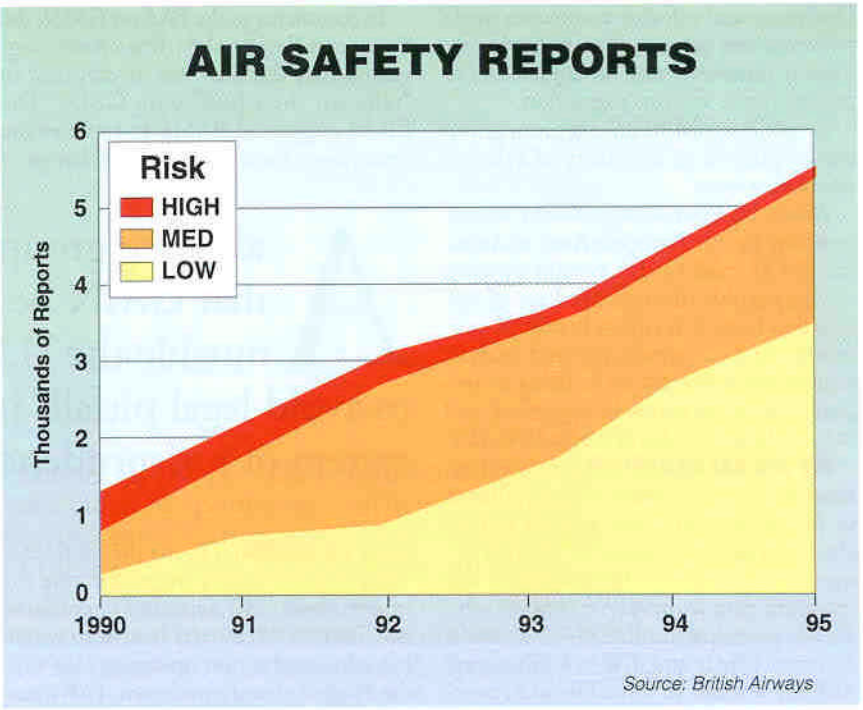
Conference discussions touched on recent court actions related to civil accident suits that are threatening GAIN's evolution.

USAir has been required to turn over to plaintiffs' attorneys safety data related to a McDonnell Douglas DC-9 accident at Charlotte, N.C. The airline's argument that data should be protected since it was compiled for the purpose of self-analysis and improvement was ignored recently by the U.S. Supreme Court.

In the Cali, Colombia, case in U.S. District Court in Miami, American Airlines managers and pilots have been deposed by attorneys. Data from the Aviation Safety Action Partnership (ASAP), a safety information program cosponsored by the airline, the Allied Pilots Assn., and the FAA have been provided to the plaintiffs.

Capt. K. Scott Griffith of American told the GAIN conference that the court requirements could have a "chilling effect" on programs, such as ASAP, which were designed to shield those who volunteer safety information and have been assured of protection from punitive actions.

FAA Administrator David Hinson said the FAA has been armed with new authority to protect voluntary disclosures of safety or security information under the recently enacted FAA authorization legislation, Public Law 104-264. The provision prohibits disclosure if the Administrator determines that it would "inhibit the voluntary" report of safety and security information.



The new authority does not extend protections in the case of civil suits, such as those American and USAir are facing. Hinson said the FAA will seek additional data protection remedies from Congress, but there were no guarantees. Airline officials said the rights of individuals to a fair trial have long been recognized as paramount, leading to the widest possible latitude in the pretrial discovery process, including the submission of internal company information.

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Christopher A. Hart, a lawyer and the assistant FAA administrator for system safety, said that individuals also had the right to a safe flying environment, which GAIN would ensure. He said analysis of safety data related to airline operations are the aviation community's greatest hope to proactively tackle issues before they develop into incidents and accidents.

Hart said protection of safety data from misuse was a requirement that coincides with the FAA's mandate to reduce the aviation accident rate as it prepares the system for the expected doubling of traffic in the next century.

GAIN proponents believe that new analytical methods may be developed that detect trends that current systems, working independently, fail to grasp. They are seeking the widest participation so that the network would provide data coverage of aviation safety issues for various types of aircraft and engines, equipment, airports and the like. GAIN would be broader in scope than a FOQA program, which focuses on flight operations alone at a single carrier.

A committee was formed at the conference to address legal issues. This occurred at one of 10 or more sessions and working groups closed to the press. Conference officials said they barred the press in the interests of creating an atmosphere in which participants could speak freely about sensitive issues of confidentiality, trust, litigation, liability and security.

One working group fashioned a mission statement that GAIN would "facilitate the exchange of 'de-identified' air safety information based on trust in real-time, with aviation community participants, providing complete protection to information sources in a cost-beneficial manner, ultimately eliminating aircraft accidents."

DURING AN INTERACTIVE SESSION, the safety officers defined the core of GAIN as either a multilayered organization or a central core around which participants contributed. Discussions centered on whether there should be a single warehouse for information or a network of computers.

Computer and software companies made presentations on networking. Arranging a secure intranet system on the Internet to communicate was one suggestion.

A task assigned to one working group was to prepare an inventory of aviation safety data bases.

Albert H. Prest, vice president, operations, for the Air Transport Assn. of America (ATA), said GAIN should develop slowly, possibly through a linkage of various data bases that currently exist. A confederation of data exchange and analysis entities could develop by focusing on important aviation issues, he suggested, and in time show the value of a broader GAIN.

THE ATA HAS ORGANIZED a new office, headed by former Navy officer William G. Bozin, director, safety analysis and exchange. The office, using its recently acquired British Airways BASIS system, will integrate data from ATA members who already participate in BASIS—Northwest Airlines, USAir and TWA. Continental Airlines is about to join. The U.S. carriers are some of the 60 airline participants in the British Airways system, which also has linkages to data from manufacturers, airports and other aviation related activities. ATA plans to establish a technical membership for international carriers in the organization, which would entitle them to safety information.

In comments to the FAA on GAIN, the European Regional Airlines Assn. suggested that the FAA was attempting to "reinvent the wheel" with GAIN. The ERAA suggested BASIS to serve as the centerpiece for a worldwide exchange of safety information. During the conference other sites for GAIN suggested were the International Civil Aviation Organization and Battelle Memorial Institute, which has submitted a joint operating plan with the Flight Safety Foundation. FSF president Stuart Matthews cited his organization's long experience, and the computer and analytical capabilities of Battelle.

A working group suggested that GAIN be located outside the U.S. to avoid legal pitfalls in the U.S. system of jurisprudence and nuisance requests through the Freedom of Information Act. There was brief public discussion related to how the benefits of GAIN might apply to carriers in developing countries.

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Participants from the U.S. airlines included the ATA, which represents most of the carriers, and United Airlines, American Airlines, FedEx, Kitty Hawk Air Cargo, TWA, Delta Air Lines, USAir and Air Wisconsin. The International Air Transport Assn. sent a representative, and British Airways, Japan Airlines and All Nippon Airways were represented individually.

Speakers in public sessions provided examples of how systems of safety data collection and analysis can work to prevent accidents. Representatives of the chemical and nuclear industries discussed safety programs. James M. Brock, Jr., aviation industry manager for DuPont, detailed the company's successful program to achieve zero accidents and cited the parallels with the GAIN effort.

British Airways has spent $2 million over a five-year period developing BASIS. The data capture includes operational safety reports, maintenance quality reports,

The British Airways' BASIS program, the world's largest private data collection and analysis service, has 60 airline participants.

human factors information and flight data recorder data from all flight operations.

Lesser-risk incident reports are on the rise, which provides a data source for analysis and determination of potential problems and preventive steps.

Capt. Mike Holtom, senior manager-safety service, who is in charge of BASIS, said the program would provide the largest contribution of data to a worldwide network. As a pathfinder in the new field of safety analysis, BASIS has grown to where it is processing four gigabytes of data from its various sources each day. Some 20,000 incidents have been analyzed. Each incident has been published and disseminated to interested groups.

U.S. ALPA HAS ACQUIRED the BASIS system to shift its Pilots Reporting System from a paperwork operation to an electronic one. The software categorizes the reports and provides trend monitoring related to aircraft types. H. Keith Hagy, manager, engineering and accident investigation section at ALPA, stressed the importance of creating a proper environment that favors openness and rejects punitive responses.

In another presentation, Capt. Teiichi Yagi, director of Japan Airlines' program, Daily Flight Operation Monitoring, cited examples of how the monitoring program has uncovered trends. Japan Airlines' pilots are able to compare their landings against normal flight parameters. A printer installed in the cockpits of most of JAL's long-range aircraft types out a comparative performance report as soon as the aircraft rolls to a stop.